

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Ann M. Lees et al.

Art Unit :

Serial No. : 10/616,187

Examiner :

Filed : July 9, 2003

Title : NOVEL LOW DENSITY LIPOPROTEIN BINDING PROTEINS AND THEIR  
USE IN DIAGNOSING AND TREATING ATHEROSCLEROSIS

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Under 35 USC §120, this application relies on the earlier filing date of U.S. Patent Application No. 09/616,289, filed July 14, 2000, U.S. Patent Application No. 09/517,849, filed March 2, 2000, and U.S. Patent Application No. 08/979,608, filed November 26, 1997. The references listed in the attached form PTO-1449 were submitted to or cited by the Office in a prior application are therefore not provided in this application.

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Applicant : Ann M. Lees et al.  
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Attorney's Docket No.: 10797-004005

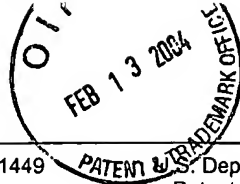
This statement is being filed before the receipt of a first Office action on the merits.  
Please apply any charges or credits to Deposit Account No. 06-1050, referencing Attorney  
Docket No. 10797-004005.

Respectfully submitted,

Date: February 10, 2004

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<b>Substitute Form PTO-1449</b> (Modified)  <b>Information Disclosure Statement</b> <b>by Applicant</b> (Use several sheets if necessary)  (37 CFR §1.98(b))	<b>U.S. Department of Commerce</b> <b>Patent and Trademark Office</b>	<b>Attorney's Docket No.</b> 10797-004005	<b>Application No.</b> 10/616,187
	<b>Applicant</b> Ann M. Lees et al.		
	<b>Filing Date</b> July 9, 2003	<b>Group Art Unit</b>	

U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	4,660,563	04/28/1987	Lees			
	AB	4,877,599	10/31/1989	Lees			
	AC	5,196,324	03/23/1993	Bumol et al.			
	AD	5,661,015	08/26/1997	Binger et al.			
	AE	5,665,872	09/09/1997	Saito et al.			
	AF	5,726,153	03/10/1998	Lees et al.			

Foreign Patent Documents or Published Foreign Patent Applications								
Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	AG	WO 91/06011	05/02/1991	WIPO				
	AH	WO 91/16919	11/14/1991	WIPO				
	AI	WO 94/16074	07/21/1994	WIPO				
	AJ	WO 96/12811	05/1996	WIPO				
	AK	WO 98/23282	06/04/1998	WIPO				
	AL	EP 0586094	03/09/1994	EPO				
	AM	EP 0773290	05/14/1997	EPO				
	AN	DE 4222385	01/13/1994	Germany				
	AO	J59206046	11/21/1984	Japan				

Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
	AP	Accession AF006088, GenBank, December 15, 1999
	AQ	Accession AF017807, GenBank, September 18, 1997
	AR	Accession AL022098, GenBank, November 23, 1999
	AS	Accession AL049795, GenBank, February 18, 2000
	AT	Accession AL137800, GenBank, June 20, 2000
	AU	Accession L15344, GenBank, May 25, 1995
	AV	Accession NM005717, GenBank, June 9, 1999

<b>Examiner Signature</b>	<b>Date Considered</b>
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

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**Other Documents (include Author, Title, Date, and Place of Publication)**

Examiner Initial	Desig. ID	Document
	AW	Altenburger et al., Database: A_Geneseq_0601, Accession No.: AAW33626 (May 21, 1998)
	AX	Daikin Kogyo KK, Database: A_Geneseq_0601, Accession No.: AAR30641 (May 6, 1993)
	AY	GenBank™ Accession No. AA287095 (August 14, 1997)
	AZ	GenBank™ Accession No. R76498 (June 6, 1995)
	AAA	GenBank™ Accession No. W07246 (April 25, 1996)
	ABB	Gottschling et al., Database: A_Geneseq_0601, Accession No.: AAR95607 (October 12, 1996)
	ACC	Miki et al., Database: SPTREMBL_16, Accession No.: Q95107 (February 1, 1997)
	ADD	Ambrus, Jr. et al., "Identification of a cDNA for a human high-molecular-weight B-cell growth factor," Proc. Natl. Acad. Sci. USA, 90:6630-6334, (July 1993)
	AEE	Ambrus et al., Identification of a cDNA for a human high-molecular-weight B-cell growth factor, PNAS 93:8154 (1996)
	AFF	Camejo et al., "Characterization and Properties of a Lipoprotein-Complexing Proteoglycan from Human Aorta," Atherosclerosis, 35:307-320, (1980)
	AGG	Chang et al., "Low-Density Lipoprotein Modification and Arterial Wall accumulation In a Rabbit Model of Atherosclerosis," Biochemistry, 32(33):8518-8524, (1993)
	AHH	Chang et al., "Time Course of <sup>125</sup> I-Labeled LDL Accumulation in the Healing, Balloon-Deendothelialized Rabbit Aorta," Arteriosclerosis and Thrombosis, 12(9):1088-1098, (September 1992)
	AII	Davies, "Flow-Mediated Endothelial Mechanotransduction," Physiological Reviews, 75(3):519-560, (July 1995)
	AJJ	de Rijke et al., "Rat Liver Kupffer and Endothelial Cells Express Different Binding Proteins for Modified Low Density Lipoproteins," The Journal of Biological Chemistry, 269(2):824-827, (January 14, 1994)
	AKK	DePaola et al., "Vascular Endothelium Responds to Fluid Shear Stress Gradients," Arteriosclerosis and Thrombosis, 12(11):1254-1257, (November 1992)
	ALL	Esterbauer et al., "The Role of Lipid Peroxidation and Antioxidants In Oxidative Modification of LDL," Free Radical Biology & Medicine, 13:341-390, (1992)
	AMM	Fischman et al., "Accumulation of Native and Methylated Low Density Lipoproteins by Healing Rabbit Arterial Wall," Arteriosclerosis, 7(4):361-366, (July/August 1987)
	ANN	Gimbrone, Jr. et al., "Vascular Endothelium An Integrator of Pathophysiological Stimuli in Atherogenesis," Annals New York Academy of Sciences, 748:122-131, (1995)
	AOO	Gofman et al., "Blood Lipids and Human Atherosclerosis," The Journal of the American Heart Association, II(2):161-178, (August 1950)
	APP	Hoff et al., "Apolipoprotein B Retention in the Grossly Normal and Atherosclerotic Human Aorta," Circulation Research, 41(5):684-690, (November 1977)
	AQQ	Hoff et al., "Detergent Extraction of Tightly-Bound apoB from Extracts of Normal Aortic Intima and Plaques," Experimental and Molecular Pathology, 28:290-300, (1978)

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	ARR	Kuzmenko et al., "Characteristics of Smooth Muscle Cell Lipoprotein Binding Proteins (p105/p130) as T-Cadherin and Regulation by Positive and Negative Growth Regulators," Biochemical and Biophysical Research Communications, 246:489-494, (1998)
	ASS	Lee et al., "Nucleotide sequence of the rat low density lipoprotein receptor cDNA," Nucleic Acids Res. 17(3):1259-1260 (1989)
	ATT	Lees et al., " <sup>99m</sup> Tc-labeled low density lipoprotein: receptor recognition and intracellular sequestration of radiolabel," JOURNAL OF LIPID RESEARCH, 32(1):1-8 (1991)
	AUU	Lees et al., "Imaging Human Atherosclerosis with <sup>99m</sup> Tc-labeled Low Density Lipoproteins," Arteriosclerosis, 8(5):461-470, (September/October 1988)
	AVV	Miki et al., "N-WASP, a novel actin-depolymerizing protein, regulates the cortical cytoskeletal rearrangement in a PIP2-dependent manner downstream of tyrosine kinases," The EMBO Journal, vol. 15(19):5326-5335 (1996)
	AWW	Minick et al., "Role of Endothelium and Hypercholesterolemia in Intimal Thickening and Lipid Accumulation," American Journal of Pathology, 95(1):131-151, Figs. 1-7, (April 1979)
	AXX	Morel et al., "Endothelial and Smooth Muscle Cells Alter Low Density Lipoprotein In Vitro by Free Radical Oxidation," Arteriosclerosis, 4(4):357-364, (July/August 1984)
	AYY	Nielsen, "Transfer of Low Density Lipoprotein Into the Arterial Wall and Risk of Atherosclerosis," Arteriosclerosis, 123:1-15, (1996)
	AZZ	Nivelstein et al., "Lipid accumulation in Rabbit Aortic Intima 2 Hours After Bolus Infusion of Low Density Lipoprotein," Arteriosclerosis and Thrombosis, 11(6):1795-1805, (November/December 1991)
	AAAA	Ramprasad et al., "Cell Surface Expression of Mouse Macrosialin and Human CD68 and Their Role As Macrophage Receptors for Oxidized Low Density Lipoprotein," Proc. Natl. Acad. Sci. USA, 93:14833-14838, (December 1996)
	ABBB	Roberts et al., "Selective Accumulation of Low Density Lipoproteins In Damaged Arterial Wall," Journal of Lipid Research, 24:1160-1167, (1983)
	ACCC	Scandinavian Simvastatin Survival Study Group, "Randomised Trial of Cholesterol Lowering in 4444 Patients with Coronary Heart Disease: the Scandinavian Simvastatin Survival Study (4S), The Lancet, 344:1383-1389, (November 19, 1994)
	ADDD	Schwenke et al., "Initiation of Atherosclerotic Lesions in Cholesterol-fed Rabbits," Arteriosclerosis, 9(6):895-907, (November/December 1989)
	AEEE	Schwenke et al., "Initiation of Atherosclerotic Lesions in Cholesterol-fed Rabbits," Arteriosclerosis, 9(6):908-918, (November/December 1989)
	AFFF	Shepherd et al., "Prevention of Coronary Heart Disease with Pravastatin In Men with Hypercholesterolemia," The New England Journal of Medicine, 333(20):1301-1307, (November 16, 1995)
	AGGG	Shih, "Focal Accumulation of An Apolipoprotein B-based Synthetic Oligopeptide in the Healing Rabbit Arterial Wall," Proc. Natl. Acad. Sci. USA, 87:1436-1440, (February 1990)
	AHHH	Sigma Chemical Company, Biochemicals Organic Compounds for Research and Diagnostic Reagents, p. 1906 (1995)
	AIII	Smith, "The Relationship Between Plasma and Tissue Lipids in human Atherosclerosis," Adv. Lipid Res., 12:1-49, (1974)

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(37 CFR §1.98(b))

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	AJJJ	Srinivasan et al., "Isolation of Lipoprotein-Acid Mucopolysaccharide Complexes from Fatty Streaks of Human Aortas," Atherosclerosis, 16:95-104, (1972)
	AKKK	Stamler et al., "Is Relationship Between Serum Cholesterol and Risk of Premature Death From Coronary Heart Disease Continuous and Graded?," JAMA, 256(20):2823-2828, (November 28, 1986)
	ALLL	Stampfer et al., "A Prospective Study of Cholesterol, Apolipoproteins, and the Risk of Myocardial Infarction," New England Journal of Medicine, 325:373-381, (August 8, 1991)
	AMMM	Stary et al., "A Definition of Initial, Fatty Streak, and Intermediate Lesions of Atherosclerosis," Arteriosclerosis and Thrombosis, 14(5):840-856, (May 1994)
	ANNN	Steinberg et al., "Beyond Cholesterol Modifications of Low-Density Lipoprotein That Increase Its Atherogenicity," The New England Journal of Medicine, 320(14):915-924, (April 6, 1989)
	AOOO	Steinbrecher et al., "Modification of Low Density Lipoprotein By Endothelial Cells Involves Lipid Peroxidation and Degradation of Low Density Lipoprotein Phospholipids," Proc. Natl. Acad. Sci. USA, 81:3883-3887, (June 1984)
	APPP	Tkachuk, "Identification of an atypical lipoprotein-binding protein from human aortic smooth muscle as T-cadherin," Federation of European Biochemical Societies, 421:208-212, (1998)
	AQQQ	Weisgraber et al., "Role of the Lysine Residues of Plasma Lipoproteins in High Affinity Binding to Cell Surface Receptors on Human Fibroblasts," The Journal of Biological Chemistry, 253:9053-9062, (1978)
	ARRR	Welch et al., "Actin Polymerization is Induced by Arp2/3 Protein Complex at the Surface of Listeria Monocytogenes," Nature, 385:265-269, (January 16, 1997)
	ASSS	Welch et al., "The Human Arp2/3 Complex Is Composed of Evolutionarily Conserved Subunits and Is Localized to Cellular Regions of Dynamic Actin Filament Assembly," The Journal of Cell Biology, 138(2):375-384, (July 28, 1997)
	ATTT	Williams, "The Response-to-Retention Hypothesis of Early Atherogenesis," Arteriosclerosis, Thrombosis, and Vascular Biology, 15(5):551-561, (May 1995)
	AUUU	Yang et al., "Protein farnesyltransferase in plants. Molecular cloning and expression of a homolog of the beta subunit from the garden pea," Plant Physiol. 101:667-674 (1993)

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